Epitomes

Important Advances in Clinical Medicine

Otolaryngology/Head and Neck Surgery

The Scientific Board of the California Medical Association presents the following inventory of items of progress in otolaryngology/head and neck surgery. Each item, in the judgment of a panel of knowledgeable physicians, has recently become reasonably firmly established, both as to scientific fact and important clinical significance. The items are presented in simple epitome, and an authoritative reference, both to the item itself and to the subject as a whole, is generally given for those who may be unfamiliar with a particular item. The purpose is to assist busy practitioners, students, researchers, or scholars to stay abreast of these items of progress in otolaryngology/head and neck surgery that have recently achieved a substantial degree of authoritative acceptance, whether in their own field of special interest or another.

The items of progress listed below were selected by the Advisory Panel to the Section on Otolaryngology/Head and Neck Surgery of the California Medical Association, and the summaries were prepared under its direction.

Reprint requests to Division of Scientific and Educational Activities, California Medical Association, PO Box 7690, San Francisco, CA 94120-7690

Intranasal Ethmoid Sinus Surgery, 1980 to 1990

IN 1985 ENDOSCOPIC INTRANASAL ethmoid sinus surgery, a more precisely done ethmoidectomy targeting earlier paranasal sinus disease and leaving a more normal-looking nose, was introduced into the United States. The procedure usually includes a middle meatal widening or opening rather than the classic nasal antral or inferior meatal window. Improved teaching methods using video equipment and observer scopes have enabled an increasing number of physicians to treat the ethmoid sinuses without the trepidation that existed previously. An increased awareness of the anatomy of the ethmoid sinus relative to the other paranasal sinuses and the use of computed tomography have helped in this breakthrough. The potential for injury due to the ethmoid sinus's proximity to the eye and anterior cranial cavity persists, however.

With experience with endoscopic surgical procedures, it has become increasingly clear that limitations still exist regardless of how the procedure is done, whether with a headlight, endoscope, or an operating microscope.

Important advances have also been made by nonendoscopic sinus surgeons in treating lower respiratory tract disease, in particular the triad of aspirin, nasal polyposis, and asthma. A more aggressive or thorough or even destructive type of procedure has been advocated in dealing with such disorders. In 1980, 50 patients underwent extensive sphenoidethmoidectomy and nasal antral windows. Of 28 cortisone-dependent asthma patients, 26 had a sustained reduction or elimination of corticosteroid use, with half being steroid-free for a period ranging from six months to four years.

Improved results were obtained when a more radical sphenoidethmoidectomy procedure was used in combination with nasal polypectomies and nasal antral windows. When a less destructive, anatomically conservative procedure was adhered to, no more than a 25% resolution in lower respiratory tract problems occurred. In a more recent study, a better than 75% improvement occurred in asthmatic patients, especially cortisone-dependent ones, when a more aggressive procedure was used.

In a controlled study involving 25 patients with the aspirin, nasal polyposis, and asthma triad, 9 patients undergoing aggressive pansinus surgical treatment, including nasal polypectomies, sphenoidethmoidectomies, and Caldwell-Lucs, all showed a marked resolution of the underlying disease. In 16 patients who underwent limited or less aggressive procedures, including intranasal ethmoidectomy and polypectomy, 6 required surgical revision for disease control.

BERKELEY S. EICHEL, MD
Torrance, California

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Treatment of Vocal Cord Paralysis

UNILATERAL VOCAL CORD PARALYSIS is most commonly treated by the administration of polytef (Teflon) paste through direct or indirect laryngoscopy. The technique has been used for more than 40 years. It is relatively quick and inexpensive, although the vocal results achieved by the procedure have recently been questioned. Temporary injections of absorbable gelatin sponge (Gelfoam) paste and Zyplast collagen, lasting four to six weeks and three to six months, respectively, may be done in patients with acute paralysis who may recover. These techniques provide voice restoration during the recurrent laryngeal nerve's recovery period. In those patients in whom recovery does not occur, other more permanent techniques may be used.

In 1974 a different approach was introduced in which a small window is cut in the thyroid cartilage and the vocal cord moved medially by placing a polymeric silicone or other alloplastic "shim" or spacer. This approach eliminates the need for an injectable permanent material. Proponents of this technique cite its reversibility and, because patients are able to phonate during the procedure, the ability to "tune" the voice intraoperatively by adjusting the implant's placement. The vocal results achieved by experienced surgeons are reported to be comparable to those with polytef injection. Voice and speech scientists cite a better mucosal wave on videostroboscopy than that achieved with polytef injection.